

**1.16 SCENARIO #1 {SMALL OPERATIONAL SPILL}**

Time of Spill: 1300  
Date of Spill: 13 August 2002  
Spill Source: Superior Crude Gathering, Inc.  
Quantity Spilled: 100 Gallons  
Product Type: #6 Crude  
Spill Cause: Leak in Transfer Hose

- 1300 A leak in the docks transfer hose is spilling oil into the water at a rate of 10 gallons a minute. The dockman is finishing his pipeline inspection and soundings.
- 1305 The dockman detects the leak and turns off the pump.
- 1307 The dockman then closes the valve at the manifold.
- 1310 The dockman places notifications as laid out in Response Plan.
- 1311 Response team is notified (01 & DA, Workers).
- 1315 Response Contractor is notified.
- 1318 NRC is notified.
- 1322 State Response Center is notified.
- 1325 Local United States Coast Guard is notified.

1330 Local Texas General Land Office is notified.

1332 Dockman reviews MSDS prior to using sorbent material on the dock.

1335 Facility responder arrives and with dockman's assistance places facility skiff in the water.

1350 Facility's skiff is in the water and boom is starting to be deployed.

1415 Boom still being deployed, Response Contractor, Corpus Christi arrives on scene with 2,000' of boom one boat and one 50 bbl vacuum truck.

1416 Qualified Individual is on scene.

1420 Response Contractor finishes booming with facility boom and starts deploying boom to contain oil against sea wall.

1425 Vacuum truck is in position and ready to recover oil.

1430 Response Contractor personnel start picking up debris off shoreline and begin prop-washing oil to collection point.

1445 Two additional vacuum trucks on scene recovering oil.

1500 First vacuum truck is loaded enroute. Superior Resource Recycling Services to dispose of waste.

1515 All oil is accumulated in recovery area. Spill Response personnel lay down sorbent pads to recover oil sheen of the water.

1525 Second vacuum truck is full enroute Superior.

1540 Last of oil is recovered, additional absorbent sweep laid along shoreline to pick off sheen.

1550 Cleanup is determined complete in accordance with the National Contingency Plan.

1610 Cleanup efforts complete.

1630 Spill report is finished, regulatory reports completed and the site is reviewed and accepted by federal agencies for transfer to resume.

1635 End of Response.

## **1.17 SCENARIO #2 (MEDIUM SUBCATASTROPHIC)**

Time of Spill: 1300  
Date of Spill: 13 August 2002  
Spill Source: Superior Crude Gathering, Inc.  
Quantity Spilled: 5,000 Gallons  
Product Type: #6 Crude  
Spill Cause: Large Leak in Transfer Hose

1300 A leak in the Superior docks transfer hose is spilling oil into the water at a rate of 75 gallons a minute. The dockman had just started his pipeline inspection and soundings prior to the leak. The barge tankerman is unaware of the discharge.

1330 Dockman returns from his rounds and discovers the leak and hits the emergency shut down, the pump does not stop.

1332 The dockman radios for assistance.

1335 The dockman secures the power to the dock, stopping the pump.

1340 The dockman is unable to close the valve on the manifold and must have the worker drive to the tank and close the valve there.

1345 The dockman turns power to the dock back on and the pump does not start.

1350 Dockman begins notifications.

1351 Response Contractor is notified and told the estimated amount is 500 gallons.

1355 Response team is on scene.

1356 NRC is notified.

1359 State Response Center is notified.

1404 Local United States Coast Guard is notified.

1408 Local Texas General Land Office is notified.

1412 Dockman reviews MSDS prior to attempting to secure valve at dock.

1420 Dockman and worker begin to close valve to prevent any further line drainage.

1435 Dockman and worker begin to deploy facility skiff.

1453 Skiff is in the water and boom is being deployed.

1500 Response Contractor arrives on scene with 2,000' of 18 inch boom, one boat and one 50 bbl vacuum truck.

1501 Qualified Individual on scene.

- 1510 Response Contractor has launched its boat and is assisting facility personnel finish booming dock area. Regulatory personnel arrive.
- 1520 Boom is in place and the Q.I. directs Response Contractor to start placing deflection boom in the Gulf Intracoastal Waterway to deflect oil to the shore.
- 1522 Response Contractor calls for more personnel and additional boom and vacuum trucks.
- 1530 Response Contractor still deploying boom. Deflection boom is in place at North Bank Terminal and oil is flowing into North Bank Terminal.
- 1550 Two 130 bbl vacuum trucks are on scene at North Bank Terminal recovering oil. 1600 First vacuum truck is full and awaiting transport trucks to off load its waste. 1625 Two 200 bbl transports on scene, deflection boom in place.
- 1630 The majority of the oil is being deflected into North Bank Terminal. Response Contractor personnel have begun cleaning the shoreline and the response boat is conducting an assessment of the scene. Additional Response Contractor personnel arrive with 1,500' of 18-inch boom, 1,000' of 24-inch boom and 500' of 10-inch boom, two weir skimmers and two boats.
- 1635 Response Contractor discovers that approximately 500 gallons of oil has made its way past North Bank Terminal and is moving towards the Corpus Christi Ship Channel along the shoreline.
- 1645 Response Contractor personnel have launched second boat with water pump and are pulling 500' of 18 inch boom, while the other boat pulls another 500' to deploy at Aker Gulf Marine to recover oil.
- 1700 Boom is deployed at Aker Gulf Marine and Response Contractor boat is washing oil down the shoreline to the boom.
- 1725 Oil contained around dock is cleaned and sorbent sweep is deployed to pick up sheen. One additional 200 bbl transport arrives to help store oil/water mixtures. The first transport is placing oil into a 10,000 bbl tank at Superior. A total of 8-70 bbl vacuum trucks, 3-130 bbl, and 3-200 bbl vacuum trucks are on scene.
- 1730 Additional personnel arrive to assist in washing shoreline and deploying sweep.
- 1750 All oil is contained and washed off shoreline.
- 1900 Oil at Aker Gulf Marine is picked up. Sorbent material is being laid on the shoreline to collect the remaining sheen. 2,500 gallons of oil water mixture has been recovered and an additional 3,000 gallons of oil remains contained in North Bank Terminal. Lights are ordered for anticipation of night cleaning. Total manpower is 44, with three response skiffs and 1 harbor boat, 14 vacuum trucks, and flow controlled weir skimmers.

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- 0100 A total of 5,000 gallons of oil/water mixtures recovered, approximately 1,000 gallons of oil remains.
- 0630 First light shows all heavy black pockets of oil are cleaned with the exception of a few 1 to 2 gallon pockets, which crews are cleaning with sorbents. A light sheen remains and sorbents are changed.

0700 Federal and State Regulatory Officials tour the area with the Q.I. and Response Contractor personnel.

0830 Clean up is deemed complete in accordance with the National Contingency Plan.

0990 The unified command decide that no more oil can be recovered by vacuum trucks and trucks are released with a total of 10,000 gallons of oil water mixtures recovered. Sorbents will be changed daily until sheen is gone. Clean up efforts complete.

1930 Spill report is finished, regulatory reports completed and the site ready to continue transfer. A final sounding of barge tanks and facility tanks shows 6,323 gallons of oil was spilled.

0935 End Response.

## 1.18 SCENARIO #3 {LARGE SUBCATASTROPHIC}

Time of Spill: 1300  
Date of Spill: 13 August 2002  
Spill Source: Superior Crude Gathering, Inc.  
Quantity Spilled: 75,000 Gallons  
Product Type: #6 Crude  
Spill Cause: Burst Transfer Hose

- 1300 The hose bursts on the Superior dock while tankerman and dockman are eating dinner in the barge and not watching the transfer.
- 1315 The dockman looks out the barge window and sees oil spilling into the water over the dock.
- 1320 Dockman uses emergency stop to secure the pump. Oil continues to drain out line.
- 1322 Dockman begins notifications.
- 1323 Response Contractors, Corpus Christi notified that 10,000 gallons of oil has been spilled.
- 1325 Response Contractor, Corpus Christi subcontracts another cleanup organization to respond with them, dockman notifies NRC.
- 1330 State Response Center is notified.
- 1335 Local United States Coast Guard is notified.
- 1340 Local Texas General Land Office is notified.
- 1345 Facility Response Team if notified.
- 1355 Dockman and worker close all valves and begin deploying facility skiff to deploy boom.
- 1410 Boat is in water and boom is being deployed to contain oil at the dock.
- 1430 Q.I. and Response Contractor arrive on scene with 5,000' boom, 2 vacuums, 2 weir skimmers.  
Spill Response assist facility in finishing deploying boom.
- 1440 Boom secured, the Q.I. estimates 40,000 gallons in the water and 35,000 gallons on land. The oil on the land is about 100 yards from a marsh and the Q.I. calls for a backhoe to dig a berm to contain the oil.

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- 450 Response Contractor has two boats in the water and is deploying 3,500' of 18 inch boom to deflect oil into North Bank Terminal, Garrett Slip and Aker Gulf Marine.
- 510 Subcontractor arrives with two boats and 10,000' of boom.
- 515 Three 70 bbl vacuum trucks arrive on scene.
- 520 Subcontractor has boats launched and is placing boom on the Redfish Bay side of the ICW to help protect the shallow flats of Redfish Bay.

- 1530 Four additional 70 bbl, 2-200 bbl and 1-130 bbl vacuum trucks on scene. Backhoe arrives and starts berm, approximately 100 gallons have made it into the marsh.
- 1545 Crews report oil has made it into the ship channel and the Q.I. has Response Contractor take 1,000' of 24 inch boom to deflect the oil to Koch Ingleside Dock, the subcontractor assists by giving Response Contractor an additional 2,000' of 18 inch for the project.
- 1600 Response Contractor contacts second subcontractor to assist with boats and laborers.
- 1630 First subcontractor has deployed 5,000' of 18 inch boom and is assisting in finishing Koch dock.
- 1645 Second subcontractor arrives with 4 boats and 12 laborers.
- 1700 Additional vacuum trucks arrive bringing total to 30 vacuum trucks, 78 laborers, 4 weir skimmers, 4 boats and 2 backhoes. Backhoes have finished berm and 5 vacuum trucks are recovering oil from berm. The marsh has been left alone until T.P.W. decides plan of attack. Bird cannons are around the marsh and along the ICW. Twelve (12) vacuum trucks are at North Bank Terminal and three (3) are at Garrett Slip. Five (5) trucks are at the dock area and five (5) more are dumping their loads into Superior tanks. A total of 11,500' of boom has been deployed.
- 1715 Q.I. has 4 response boats take additional boom to locate and contain any escaped oil. Q.I. has other boats place sorbent boom behind any boom which is entraining.
- 1730 Response Contractor arrives with 10 laborers, 3,000' of 18 inch boom and a bobtail truck full of sorbent pads and sweep.
- 1800 Tank soundings show a total of 74,623 gallons of oil missing and presumed spilled.
- 1830 All oil is contained, a heavy sheen covers the southwest end of Redfish Bay, and the Coast Guard has closed the ICW and Corpus Christi Ship Channel. Vacuum trucks are recovering 30% oil per truck per hour. Lights are ordered for night operations.
- 1900 Crews begin to wash the shoreline and pick up oil and non-oiled debris, crews begin to find a small number of dead fish and report it to T. P. W.
- 1945 One crew finds an oiled pelican and contacts T.P.W. to have them call for wildlife cleaners from the Audubon Society.
- 2015 Lights are set up, clean up in Garrets Slip is 90% complete and three of the 5 trucks are sent to Aker Gulf Marine where completion is only 30%. North Bank is 50% complete, the Dock is 100% and Kock Dock is 25% complete.
- 2030 The pelican dies before crews arrive.
- 2300 Garretts Slip is finished and sorbent sweep is placed inside to collect remaining sheen, the end of the slip is boomed and backed with sorbent.

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- 0100 North Bank is finished and trucks are sent to Koch and Aker Gulf Marine, sorbents are set to recover sheen.
- 0200 The land side of the spill is vacuumed and Q.I. makes arrangements for soil to be removed at daylight.

0300 Boom at Aker Gulf Marine breaks and 200 gallons are released. Crews are sent to wash to oil to Koch Dock.

0400 Wash crews continue from Garrett to Aker Gulf Marine. Trash is collected in bags and set aside for pick up.

0500 Cleaning continues at Aker Gulf Marine and Koch Dock.

0600 Earth moving equipment arrives to remove contaminated soil.

0700 At first light, inspection reveals small pocket of oil (2-5 gallons) at North Bank Terminals, and the shoreline is sheening heavily. Aker Gulf Marine is the collecting point of washed oil. Koch Dock is 90% complete.

0800 Sorbents are changed and frac tanks arrive for collection. The southwest end of Redfish Bay is clear.

0900 Texas Parks and Wildlife give permission for crews to enter southwest end of march to vacuum up oil and for a low pressure water pump to be used to wash oil to collection point.

1000 Crews finish vacuuming oil at Koch Dock and deploy sorbents.

1130 Vacuuming continues at Aker Gulf Marine. All but three trucks are relieved, washing continues and the vacuum trucks are sent to various locations to pick up small pockets.

1135 First subcontractor crews are relieved.

1200 Boom blocking the ship channel and ICW are removed and Coast Guard opens traffic.

1300 Boom is removed from Redfish Bay side of ICW.

1400 Boom from North Bank Terminal and Garrett Slip removed.

1500 Vacuuming at Aker Gulf Marine is finished and sorbents placed.

1630 The clean up is deemed in accordance with the National Contingency Plan.

1700 State, Federal, Facility and Response Contractor personnel meet. Boom is to line shoreline from Garrett to Aker Gulf Marine and sorbent to be changed dally until sheen stops.

1730 Clean up complete.

1800 All reports finished.

1830 End Response.



## 1.19 SCENARIO #4 (WORST CASE DISCHARGE)

Time of Spill:	1300
Date of Spill:	14 August 2002
Spill Source:	Superior Crude Gathering, Inc.
Quantity Spilled:	100,000 Gallons
Product Type:	#6 Crude
Spill Cause:	Burst Transfer Hose

### **Rationale for worst case discharge parameters:**

Superior will not be transferring during periods of adverse weather conditions. It would be more likely that adverse weather would hit during the clean up phase of an oil spill. Due to the location of the dock, Superior can fall under both open bays and river or cuts. The I.S. W. can be just as rough as the open bay waters it runs through.

In this case the spill would occur the exact way it did in scenario #3, The transfer is nearing completion scheduled. A strong tropical wave moves in around 1400 with winds at 24 kts gusting to 40 kts out of the southeast and continuing downpours with wave heights of two feet. A few funnel clouds and waterspouts are being reported.

- 1300 The hose bursts on the Superior dock while the tankerman and dockman are eating dinner in the barge and not watching the transfer.
- 1315 The dockman looks out the window on the barge and sees oil pumping into the water over the dock.
- 1320 The dockman uses the emergency stop to secure the pump. Oil continues to drain out of the line.
- 1322 The dockman begins notifications.
- 1323 Response Contractor is notified that 100,000 gallons of oil has been spilled.
- 1325 Response Contractor subcontract another DCO to respond with them. The dockman notifies NRC.
- 1330 The state response center is notified.
- 1335 The local USCG if notified.
- 1340 The local TGLO is notified.
- 1345 The facility response team is notified.
- 1355 The dockman and worker close all valves and begin deploying the facility skiff to deploy the boom.
- 1400 The dockman and the worker notice that a large storm is approaching and that the wind is getting stronger.
- 1410 The boat is in the water but high winds and rain make it unsafe for the dockman and worker to attempt containment.

1440 Q.I. and Response Contractor arrive on scene. The Q.I. tells Response Contractor to stand by till the storms subside because several waterspouts and funnel clouds have been spotted. The oil is quickly moving towards the intersection of the I.C.W. and Corpus Christi Ship Channel.

1500 The storm has subsided, winds of 20 kts continue and rain has slowed to a drizzle. Response Contractor begins to deploy boats, most of the oil has been blown towards the ship channel, and very little remains at the dock. An estimated quantity of 35,000 gallons has spilled on the land and, has flowed into a marsh area behind the dock.

1510 The boats are deployed and Response Contractor is evaluating the spill. Subcontractor one arrives at this time.

1530 Response Contractor reports to the Q.I. that the oil has flowed past the Garrett Slip and to Aker J Gulf Marine and into the ship channel. It is impacting the spoils across from Koch Ingleside.

1550 Response Contractor and subcontractor one begin deploying deflection boom at Aker and Koch. The Q.I. calls for more contractors and additional vacuum trucks. Response Contractor calls for its skimming barge to be brought from Corpus Christi.

1640 All the boom is in place, crews are starting to deploy boom at the spoil island to keep oil out of Corpus Christi Bay and contained at the spoil island.

1645 Three 70-barrel vacuum trucks are sent to Aker to start cleaning, two are sent to Koch.

1658 Subcontractor two arrives with 5000 ft of boom, 4 laborers, and 1 boat.

1710 Subcontractor three arrives with 2000 ft of boom, 5 vacuum trucks, two boats and 10 laborers. Subcontractor ones additional crews arrive with 5000 ft of boom and 1 boat.

1730 Six 70-barrel vacuum trucks arrive.

1745 Fourteen 70-barrel vacuum trucks are working, due to rough seas. Recovery is slow and full trucks are sent to Superior to off load oil. Three 200-barrel transports arrive to help store oil/water mixtures.

1800 The spoil island is completely boomed and no oil has made it into Corpus Christi Bay.

1830 Crews are cleaning the shoreline of oiled debris and are washing oil towards Koch Ingleside.

1845 The amount of oil at Aker is estimated at 10,000 gallons. The amount at Koch is estimated at 35,000 gallons, and the amount at the spoil island is estimated at 20,000 gallons. A total of 30 vacuum trucks, 78 laborers, 6 weir skimmers, and 10 boats are on scene with 15,000 ft of boom deployed.

2000 Lights are on scene for continued night operations.

2030 Response Contractor arrives with one boat, 3 000 ft of boom and 6 laborers with additional sorbent material.

2100 The skimming barge from Corpus Christi arrives and is starting to recover oil around the spoil island. An estimated 100barrels of oil/water mixture is being recovered. The FOSC gives permission to decant bringing the rate of recovery to 90 barrels of oil an hour.

2359 All the oil is contained. Approximately 5,000 gallons remain at Aker, 30,000 at Koch and 12,000 at the spoil island.

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0600 First light shows approximately 500 gallons left at Aker, 15,000 at Koch, and 1,000 at the spoil island.

0700 Six (6) vacuum trucks from Aker are sent to Koch. The wind and waves continue. Shoreline washing continues, and recovery at the spoil island is slowed due to the lessening volume of oil.

0900 The pumping system from the skimming barge is moved to the shore and inflatable bladders are moved in for shallow water recovery.

1100 Three vacuum trucks at the marsh report ninety percent completion, and sorbents are placed in the marsh. Earth moving equipment arrives to remove the contaminated soil around the marsh.

1300 Cleanup at Aker is finished and sorbents are placed in the water to recover the sheen left from the spill.

1400 Approximately 5,000 gallons remain at Koch, and 500 gallons at the spoils. Wash crews continue to wash effected shorelines.

1600 Approximately 1,000 gallons remain in the water at Koch, and 250 remain at the spoil island.

2000 Approximately 500 gallons remain in the water at Koch. Ten vacuum trucks remain on scene. 50 gallons of oil remain in the water at the spoil island.

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0100 Koch is cleaned. The oil wash crews continue to produce. Recovery at the spoils is complete. Sorbents line the beach backed by hard boom and additional sorbents. The oil on the beach is being low pressure washed and sorbents remain in place.

0600 Wash crews are finished except for the spoil island.

0900 The cleanup is deemed complete in accordance with the National Contingency Plan.

1000 State, Federal, Facility and spill response personnel meet. Boom is to line shoreline and sorbents are to be changed daily until sheen stops.

1100 Cleanup complete.

1200 All reports finished.

1230 End response.

2.0 **PREVENTION**

2.1 Leak Detection Systems, Devices, Equipment or Procedures

The dockman makes rounds every hour and watches pumping gages to determine if there are any problems or leaks in the system.

2.2 Discharge Prevention Safety Systems, Devices, Equipment, or Procedures

Daily inspections of all equipment and systems are done to ensure safety.

2.3 Testing and Maintenance Practices for Pipelines

All pipelines are hydrostatically tested Bi-annually. Daily visual inspections are performed, and all lines are painted and rust freed as needed.

2.4 Testing and Maintenance Practices for Storage Tanks or Other Structures

2.5 List of Discharges Within the Last Year

No discharges have accrued at this facility.

2.6 List of Hazardous Substance Discharges Within the Last Year

No hazardous substance discharges have accrued within the last year.

# OPERATIONS MANUAL

1) **GEOGRAPHIC LOCATION:**

Superior Crude Gathering, Inc. dock is located in Ingleside, Texas on the northwest side of Intracoastal canal near Marker 537.3

2) **PHYSICAL DESCRIPTION OF THE FACILITY:**

See attachment 1 for drawing of the facility.

The piping subject to tests required by 33 CFR 156.17, is hose from manifold to the valve within the spill prevention control and countermeasure containment area.

- A. Mooring area Att. 1
- B. Transfer location see Att. 1
- C. Control stations located in Loading Shed see Att. 1
- D. Safety Equip. see Att. 1

3) **HOURS OF OPERATION:**

Monday- Sunday 24 hours a day, including holidays.

4) **TYPES OF VESSELS TRANSFERRING:**

The dock can handle one set of inland barges at a time only while conducting transfers. The sizes will vary, but should BE be no larger than 300 ft by 60 ft.

5) **TRANSFERRED PRODUCT INFORMATION:**

Crude Oil

Information for the description of appearance odor hazards safe handling instructions, and fire fighting instructions is provided in the MSDS section, which is attached.

6) **PERSONS ON DUTY:**

There will be a minimum of 2 persons on duty during transfer operations. One person will be designated the person in charge, (PIC) his duties will consist of monitoring and performing all activities related to the dock area during transfer operations. The other person will be responsible to inspect and monitor the pipeline and receiving tanks.

7) **EMERGENCY NOTIFICATIONS:**

**Spill Management Team: Jeff Kirby, Pres.**

**1-361-882-5117 (24hrs)**  
**(b) (6)**

**Brian Amsden, Operations Manager**

**1-361-882-5117 (24hrs)**  
**(b) (6)**

### **Emergency Response Team:**

Miller Environmental Services	1-361-289-9800
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### **Federal and State Agencies**

National Response Center	1-800-424-8802
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State Response Center:	1-800-832-8224
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USCG MSO Corpus Christi:	1-361-888-3162
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Texas General Land Office in Corpus Christi:	1-361-854-1171
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Texas Natural Resource Conservation Commission	1-361-825-3100
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Fire/Med Emergency:	911
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#### **8) DUTIES OF WATCHMAN:**

Vessels that are at the dock to load or unload crude oil for SCG and contain more than normal clingage and unpumable bilge or sump residues will be monitored by SCG Spill Management Team. In the event of unauthorized mooring of a vessel or any other abnormal situation, Superior will notify the authorities. Superior is not responsible for the security of nauthorized vessel. There will be no unmanned vessels moored at the facility.

#### **9) COMMUNICATIONS:**

The facility will provide two (2), two-way radios that are intrinsically safe as defined in 46 CFR 110.15-100(i), and meet Class I, Division I, Group B requirements as defined by 46 CFR 111.80.

The vessel PIC and the shoreside PIC will maintain communications via use of portable marine VHF radio. There will also be a marine VHF Radio in the loading shelter. Each Superior Employee will have a mobile telephone.

#### **10) PERSONNEL SHELTER:**

The shelter for the PIC is located at the dock and is 50 ft. from the transfer connection.

#### **11) DRIP PANS:**

There is a 5 bbl drip pad constructed of cement located at the transfer connection on the dock. This will be cleaned as it becomes dirty or full.

#### **12) EMERGENCY SHUT DOWN:**

There is no emergency shut down system at the dock facilities.

The pump in the Superior tank farm has a high pressure shut down set at 90 psi. Should the shoreside PIC close the valve at the dock the high pressure shut down at the pump will shut the pump down. This will be tested each time before loading the barge.

#### **13) MONITORING DEVICES:**

There are no monitoring devices installed at the dock facility.

14) **CONTAINMENT EQUIPMENT:**

500 ft. boom; 19 ft. skiff 150 hp are located at the dock. The response action plan in our response plan addresses our time limits and actions. Access to containment equipment is by direct ownership of Superior. Miller Environmental is the Oil Spill Response Organization that is designated by Superior Facility Response Plan.

15) **FIRE FIGHTING EQUIPMENT:**

The dock facility is equipped with 2 - (50lb) Dry Chemical extinguishers. The extinguishers are activated by pulling the retaining ring, charging the cylinder and pointing the nozzle and squeezing the handle.

16) **RELIEF VALVE SYSTEM:**

The Maximum Allowable Working Pressure (MAWP) and Max. System Pressure MSP for loading is 100 psi.

17) **TRANSFER PROCEDURES:**

(i) Loading arms will not be used.

(ii) The person in charge will notify the COTP at least 2 hours before the transfer begins.

A transfer hose will be inspected for test date, maximum working pressure and general integrity. When vessel is moored, the surveyor will verify vessel is in acceptable condition.

A Pretransfer conference will be held. Vessel and Superior personnel will discuss transfer procedures, identify of product being loaded or unloaded, and the transfer rate. They will discuss names, locations and responsibility of each person participating in transfer operation. They will discuss weather conditions and tidal movements that may affect load and emergency response.

They will discuss emergency procedures, communications and inspect the vessel to ensure all applicable regulations of 33 and 46 CFR are met.

The Declaration of Inspection will be completed and signed by Superior and vessel personnel (Shoreside and vessel PIC).

Superior tank farm personnel will confirm surveyor's report and make preparation for startup of transfer.

Shoreside PIC and Superior Tank Farm personal will test high pressure shut down at the pump hose.

Superior tank farm personnel will notify Shoreside PIC of readiness to transfer.

Shoreside PIC and vessel personnel will confirm readiness and begin transfer of crude oil.

During transfer the Shoreside Person in Charge (PIC) will remain at the dock area, including inside the loading shed and in communication with the vessel PIC, and tank farm throughout the transfer.

Throughout the transfer, the shoreside PIC will monitor the line pressure, hose, mooring lines, and all connections, weather conditions and communications between PIC's will also be monitored.

Superior tank farm personnel continuously monitors flow and tank level.

(iii) Completion of pumping.

At the completion of the transfer the shoreside and vessel PIC will communicate and confirm that the transfer is complete and flow of cargo is stopped. Shore and vessel valves are shut.

Surveyor gauges vessel and shore tank to verify amount of transfer.

Superior and vessel personnel will re-open necessary valves and drain the loading hose. The vessel and shoreside cargo valves are shut and the loading hose is disconnected and blanked off.

After transfer is complete the surveyor will gauge and release the vessel.

(iv) **Emergencies**

If an emergency situation occurs on the vessel or dock during the vessel loading the shoreside PIC will shut valve in spill containment area and PIC will communicate with Superior tank farm personnel to shut pump down. Flow will be shut within 30 seconds. If the emergency occurs while discharging the vessel, the vessel PIC will shut down pumping operations, the shoreside PIC will close the dockside valve.

In case of a fire the PIC's will provide initial response using portable fire extinguishes. Addition response will be provided by local Fire Departments. In case of a spill the oil spill boom will be deployed as needed to contain oil and sorbents will be applied. For large spills Miller Environmental will be called to respond and conduct the cleanup operation.

During any emergency situation the primary concern is always PERSONNEL SAFETY!!!

18) **OIL DISCHARGES, NOTIFICATION AND CONTAINMENT:**

Discovery of a spill will immediately be relayed to the PIC. The PIC will notify both vessel personnel and Superior Tank Farm personnel. The PIC will notify the National Response Center, Coast Guard MSSO Corpus Christi, TNRCC, the GIO, all depending on the size and extent of spill. Additional notifications will be executed as per Emergency Response procedures defined in section 17 of this manual

19) **APPLICABLE FEDERAL, STATE, AND LOCAL OIL AND HAZARDOUS MATERIAL POLLUTION , LAWS AND REGULATIONS:**

FEDERAL

1. Refuse Act: Prohibits the discharge of any material into the navigable waters of the United States. It is mainly used to prevent obstructing navigation; but, can be used of oil discharge.
2. Federal Water Pollution Control Act (FWPCA): This law is the basic authority for maritime oil pollution discharges in U.S. navigable water or its tributaries.
3. Clean Water Act (CWA): The CWA amends the FWPCA. It gives the Coast Guard additional authority to investigate oil pollution.
4. Oil Pollution Act of 1990 (OPA-90): OPA-90 amends the CWA. It provides for a \$1 billion oil spill up fund. It increases the Coast Guard's responsibilities to develop contingency plans. It gives the Coast Guard additional authority to direct and control spill cleanup projects. OPA-90 also increases the liability of the responsible party in case of an oil spill.
5. Comprehensive Environmental Response Compensation Liability Act (CERCLA): This act prohibits the unauthorized release of hazardous substances into air, land, or water.

STATE:

OIL SPILL PREVENTION AND RESPONSE ACT (OSPR): OSPRA is the Texas state law that concerns oil spills. This act compliments and supports OPA-90. OSPRA provides comprehensive legal framework and funding system that allows the State of Texas to establish and monitor oil spill prevention and response requirements for vessels and facilities that handle oil. It also provides for the State of Texas to establish and carry out an effective program to respond to oil spills.

Regulations that address oil spill prevention and marine terminal operations are found in 33 code of Federal Regulations parts 126, 127, 154, and 156.

20) **PORTABLE LIGHTING:**

No portable lighting will be used.



21) **TRAINING:**

All persons in charge will have completed appropriate training of all standard operation procedures related to these operations. The training will include the following;

- (I) Forty-eight hours of hands-on training conducted under the supervision of the Facility Manager.
- (ii) Training as described in 29CFR 1910.120. Hazardous Waste Operation and Emergency Response (HAZWOPER)
- (iii) SCG Introductory Training
- (iv) Hazard Communication Training
- (v) Hydrogen Sulfide Training
- (vi) SCG PIC Training

22) **TRANSFER HOSE/MATERIAL COMPATABILITY**

Crude oil is the only material transfer hose is used for. The hose will be stamped crude oil.

23) **TANK CLEANING/STRIPPING**

There will be no tank cleaning or stripping operations at Superior's Dock.

24) **VAPOR RECOVERY**

The facility has no vapor recovery system.